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June 27, 2019

VIA ELECTRONIC FILING

The Honorable Jocelyn G. Boyd
Chief Clerk/Administrator
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, South Carolina 29210

**RE: Duke Energy Progress, LLC – Monthly Power Plant
Performance Report
Docket No. 2006-224-E**

Dear Ms. Boyd:

Pursuant to the Commission's Orders in Docket No. 1977-354-E, enclosed for filing is the Monthly Power Plant Performance Report in Docket No. 2006-224-E for the month of May 2019.

Should you have any questions regarding this matter, please do not hesitate to contact me at 803.988.7130.

Sincerely,

Rebecca J. Dulin

Enclosure

cc: Ms. Dawn Hipp, Office of Regulatory Staff
Mr. Jeffrey M. Nelson, Office of Regulatory Staff
Ms. Nanette Edwards, Office of Regulatory Staff
Mr. Michael Seaman-Huynh, Office of Regulatory Staff
Ms. Heather Shirley Smith, Duke Energy
Mr. Scott Elliott, Elliott & Elliott, P.A.
Mr. Garrett Stone, Brickfield, Burchette, Ritts & Stone, PC
Mr. Gary Walsh, Walsh Consulting, LLC

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

Period: May, 2019

Station	Unit	Date of Outage	Duration of Outage	Scheduled / Unscheduled	Cause of Outage	Reason Outage Occurred	Remedial Action Taken
Brunswick	1	None					
	2	None					
Harris	1	None					
Robinson	2	None					

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May 2019**

Lee Energy Complex

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
1A	5/3/2019 11:39:00 PM To 5/24/2019 5:25:00 PM	Sch	5272	Gas Turbine - Boroscope Inspection	SAMS Inspection.	
1B	5/3/2019 11:37:00 PM To 5/24/2019 11:59:00 AM	Sch	5272	Gas Turbine - Boroscope Inspection	SAMS Inspection.	
1B	5/24/2019 12:26:00 PM To 5/25/2019 1:17:00 AM	Sch	5048	Gas Fuel System with controls and instruments	Unit run back and trip due to low frequency dynamics.	
1C	5/3/2019 11:38:00 PM To 5/25/2019 2:15:00 PM	Sch	5272	Gas Turbine - Boroscope Inspection	SAMS Inspection.	
ST1	5/3/2019 9:16:00 PM To 5/26/2019 12:37:00 AM	Sch	3975	Distributive Control System Upgrades	DCS Upgrade, Condenser Ball Cleaning System, HRSG Inspections.	

Richmond County Station

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
9	3/16/2019 4:03:00 AM To 5/17/2019 8:55:00 PM	Sch	5260	Major Gas Turbine Overhaul	CTmajor, BOP and ST major.	
10	3/16/2019 4:03:00 AM To 5/17/2019 2:46:00 PM	Sch	5260	Major Gas Turbine Overhaul	CTmajor, BOP and ST major.	
10	5/18/2019 7:53:00 PM To 5/21/2019 11:39:00 PM	Sch	4560	Generator Vibration	Damaged generator fixators.	
ST5	3/16/2019 3:54:00 AM To 5/25/2019 7:30:00 PM	Sch	4400	Major Turbine Overhaul (720 Hours Or Longer)	CTmajor, BOP and ST major.	
ST5	5/26/2019 8:21:00 AM To 5/26/2019 5:56:00 PM	Sch	4899	Other Miscellaneous Generator Problems	MW and MVAR indications incorrect.	
ST5	5/26/2019 7:40:00 PM To 5/26/2019 8:35:00 PM	Sch	4899	Other Miscellaneous Generator Problems	MW transducer replaced.	

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May 2019**

Sutton Energy Complex

Unit	Duration of Outage	Type of Outage	Cause of Outage		Reason Outage Occurred	Remedial Action Taken
1A	5/20/2019 1:16:00 PM To 5/20/2019 9:38:00 PM	Unsch	4609	Other Exciter Problems	01A trip due to excitation static.	
1B	5/24/2019 8:30:00 AM To 5/25/2019 8:44:00 PM	Unsch	4609	Other Exciter Problems	Generator unload and separated from grid due to unknown exciter issue.	

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**May 2019
Brunswick Nuclear Station**

	<u>Unit 1</u>		<u>Unit 2</u>	
(A) MDC (mW)	938		932	
(B) Period Hours	744		744	
(C) Net Gen (mWh) and Capacity Factor (%)	710,343	101.79	694,624	100.18
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00	292	0.04
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-12,471	-1.79	-1,508	-0.22
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	697,872	100.00%	693,408	100.00%
(K) Equivalent Availability (%)	100.00		99.49	
(L) Output Factor (%)	101.79		100.18	
(M) Heat Rate (BTU/NkWh)	10,441		10,626	

* Estimate
FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**May 2019
Harris Nuclear Station**

Unit 1

(A) MDC (mW)	964	
(B) Period Hours	744	
(C) Net Gen (mWh) and Capacity Factor (%)	720,979	100.52
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	0	0.00
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-3,763	-0.52
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	717,216	100.00%
(K) Equivalent Availability (%)		100.00
(L) Output Factor (%)		100.52
(M) Heat Rate (BTU/NkWh)		10,372

* Estimate

FOOTNOTE: D and F Include Ramping Losses

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**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**May 2019
Robinson Nuclear Station**

Unit 2

(A) MDC (mW)	741	
(B) Period Hours	744	
(C) Net Gen (mWh) and Capacity Factor (%)	571,329	103.63
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	5,980	1.08
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-26,005	-4.71
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	551,304	100.00%
(K) Equivalent Availability (%)		98.92
(L) Output Factor (%)		103.63
(M) Heat Rate (BTU/NkWh)		10,281

* Estimate

FOOTNOTE: D and F Include Ramping Losses

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**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May 2019**

Lee Energy Complex

	Unit 1A	Unit 1B	Unit 1C	Unit ST1	Block Total
(A) MDC (mW)	225	227	228	379	1,059
(B) Period Hrs	744	744	744	744	744
(C) Net Generation (mWh)	34,563	34,160	34,856	67,781	171,360
(D) Capacity Factor (%)	20.65	20.23	20.55	24.04	21.75
(E) Net mWh Not Generated due to Full Scheduled Outages	111,997	114,684	118,245	201,382	546,308
(F) Scheduled Outages: percent of Period Hrs	66.90	67.91	69.71	71.42	69.34
(G) Net mWh Not Generated due to Partial Scheduled Outages	13,543	13,610	13,072	213	40,438
(H) Scheduled Derates: percent of Period Hrs	8.09	8.06	7.71	0.08	5.13
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	7,297	6,433	3,459	12,601	29,790
(N) Economic Dispatch: percent of Period Hrs	4.36	3.81	2.04	4.47	3.78
(O) Net mWh Possible in Period	167,400	168,888	169,632	281,976	787,896
(P) Equivalent Availability (%)	25.01	24.04	22.59	28.51	25.53
(Q) Output Factor (%)	67.50	65.22	68.24	84.10	72.84
(R) Heat Rate (BTU/NkWh)	9,887	9,977	9,902	3,867	7,527

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May 2019**

Richmond County Station

	Unit 7	Unit 8	Unit ST4	Block Total
(A) MDC (mW)	194	194	182	570
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	106,620	106,325	125,116	338,061
(D) Capacity Factor (%)	73.87	73.66	92.40	79.72
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	29,760	30,504	9,672	69,936
(H) Scheduled Derates: percent of Period Hrs	20.62	21.13	7.14	16.49
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	7,956	7,507	620	16,083
(N) Economic Dispatch: percent of Period Hrs	5.51	5.20	0.46	3.79
(O) Net mWh Possible in Period	144,336	144,336	135,408	424,080
(P) Equivalent Availability (%)	79.38	78.87	92.86	83.51
(Q) Output Factor (%)	75.16	75.00	94.86	81.36
(R) Heat Rate (BTU/NkWh)	11,577	11,438	0	7,249

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May 2019**

Richmond County Station

	Unit 9	Unit 10	Unit ST5	Block Total
(A) MDC (mW)	216	216	248	680
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	24,862	27,333	29,650	81,845
(D) Capacity Factor (%)	15.47	17.01	16.07	16.18
(E) Net mWh Not Generated due to Full Scheduled Outages	87,462	102,499	150,288	340,249
(F) Scheduled Outages: percent of Period Hrs	54.42	63.78	81.45	67.25
(G) Net mWh Not Generated due to Partial Scheduled Outages	14,242	11,048	0	25,290
(H) Scheduled Derates: percent of Period Hrs	8.86	6.87	0.00	5.00
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	0
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.00
(M) Net mWh Not Generated due to Economic Dispatch	34,138	19,824	4,574	58,536
(N) Economic Dispatch: percent of Period Hrs	21.24	12.34	2.48	11.57
(O) Net mWh Possible in Period	160,704	160,704	184,512	505,920
(P) Equivalent Availability (%)	36.71	29.34	18.55	27.75
(Q) Output Factor (%)	67.03	70.96	89.09	75.16
(R) Heat Rate (BTU/NkWh)	12,001	11,687	0	7,548

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
May 2019**

Sutton Energy Complex

	Unit 1A	Unit 1B	Unit ST1	Block Total
(A) MDC (mW)	224	224	271	719
(B) Period Hrs	744	744	744	744
(C) Net Generation (mWh)	122,688	117,888	155,784	396,360
(D) Capacity Factor (%)	73.62	70.74	77.26	74.09
(E) Net mWh Not Generated due to Full Scheduled Outages	0	0	0	0
(F) Scheduled Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(G) Net mWh Not Generated due to Partial Scheduled Outages	39,724	37,512	3,893	81,129
(H) Scheduled Derates: percent of Period Hrs	23.84	22.51	1.93	15.17
(I) Net mWh Not Generated due to Full Forced Outages	1,874	8,116	0	9,990
(J) Forced Outages: percent of Period Hrs	1.12	4.87	0.00	1.87
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	6,109	6,109
(L) Forced Derates: percent of Period Hrs	0.00	0.00	3.03	1.14
(M) Net mWh Not Generated due to Economic Dispatch	2,370	3,140	35,838	41,348
(N) Economic Dispatch: percent of Period Hrs	1.42	1.88	17.77	7.73
(O) Net mWh Possible in Period	166,656	166,656	201,624	534,936
(P) Equivalent Availability (%)	75.04	72.62	95.04	81.82
(Q) Output Factor (%)	74.45	74.36	77.26	75.50
(R) Heat Rate (BTU/NkWh)	11,668	11,668	0	7,082

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Intermediate Power Plant Performance
Review Plan
May 2019**

Mayo Station

Unit 1

(A) MDC (mW)	746
(B) Period Hrs	744
(C) Net Generation (mWh)	183,596
(D) Net mWh Possible in Period	555,024
(E) Equivalent Availability (%)	96.48
(F) Output Factor (%)	50.68
(G) Capacity Factor (%)	33.08

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant Performance
Review Plan
May 2019**

	Roxboro Station		
	Unit 2	Unit 3	Unit 4
(A) MDC (mW)	673	698	711
(B) Period Hrs	744	744	744
(C) Net Generation (mWh)	-1,256	303,905	99,288
(D) Net mWh Possible in Period	500,712	519,312	528,984
(E) Equivalent Availability (%)	39.36	97.11	27.85
(F) Output Factor (%)	0.00	58.54	66.17
(G) Capacity Factor (%)	0.00	58.52	18.77

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**June 2018 - May 2019
Brunswick Nuclear Station**

	<u>Unit 1</u>	<u>Unit 2</u>		
(A) MDC (mW)	938	932		
(B) Period Hours	8760	8760		
(C) Net Gen (mWh) and Capacity Factor (%)	7,613,247	92.65	6,502,806	79.65
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00	716,056	8.77
* (E) Net mWh Not Gen due to Partial Scheduled Outages	28,999	0.35	108,238	1.33
(F) Net mWh Not Gen due to Full Forced Outages	626,240	7.62	477,496	5.85
* (G) Net mWh Not Gen due to Partial Forced Outages	-51,606	-0.62	359,724	4.40
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00	0	0.00
* (I) Core Conservation	0	0.00	0	0.00
(J) Net mWh Possible in Period	8,216,880	100.00%	8,164,320	100.00%
(K) Equivalent Availability (%)		93.63		82.85
(L) Output Factor (%)		100.30		93.29
(M) Heat Rate (BTU/NkWh)		10,426		10,825

* Estimate
FOOTNOTE: D and F Include Ramping Losses

**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**June 2018 - May 2019
Harris Nuclear Station**

Unit 1

(A) MDC (mW)	964	
(B) Period Hours	8760	
(C) Net Gen (mWh) and Capacity Factor (%)	8,624,626	104.16
(D) Net mWh Not Gen due to Full Schedule Outages	0	0.00
* (E) Net mWh Not Gen due to Partial Scheduled Outages	732	0.01
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-345,102	-4.17
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	8,280,256	100.00%
(K) Equivalent Availability (%)		99.99
(L) Output Factor (%)		104.15
(M) Heat Rate (BTU/NkWh)		10,207

* Estimate

FOOTNOTE: D and F Include Ramping Losses

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**Duke Energy Progress
Base Load Power Plant Performance Review Plan**

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**June 2018 - May 2019
Robinson Nuclear Station**

Unit 2

(A) MDC (mW)	741	
(B) Period Hours	8760	
(C) Net Gen (mWh) and Capacity Factor (%)	5,282,885	81.39
(D) Net mWh Not Gen due to Full Schedule Outages	1,297,442	19.99
* (E) Net mWh Not Gen due to Partial Scheduled Outages	101,667	1.57
(F) Net mWh Not Gen due to Full Forced Outages	0	0.00
* (G) Net mWh Not Gen due to Partial Forced Outages	-190,834	-2.95
* (H) Net mWh Not Gen due to Economic Dispatch	0	0.00
* (I) Core Conservation	0	0.00
(J) Net mWh Possible in Period	6,491,160	100.00%
(K) Equivalent Availability (%)		78.67
(L) Output Factor (%)		101.72
(M) Heat Rate (BTU/NkWh)		10,435

* Estimate

FOOTNOTE: D and F Include Ramping Losses

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**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
June, 2018 through May, 2019**

Lee Energy Complex

	Unit 1A	Unit 1B	Unit 1C	Unit ST1	Block Total
(A) MDC (mW)	225	227	228	379	1,059
(B) Period Hrs	8,760	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,413,677	1,410,994	1,433,090	2,824,200	7,081,961
(D) Capacity Factor (%)	71.72	70.96	71.75	85.07	76.34
(E) Net mWh Not Generated due to Full Scheduled Outages	111,997	126,753	133,053	201,382	573,185
(F) Scheduled Outages: percent of Period Hrs	5.68	6.37	6.66	6.07	6.18
(G) Net mWh Not Generated due to Partial Scheduled Outages	254,879	263,645	267,808	48,940	835,273
(H) Scheduled Derates: percent of Period Hrs	12.93	13.26	13.41	1.47	9.00
(I) Net mWh Not Generated due to Full Forced Outages	37,736	37,561	36,096	61,499	172,892
(J) Forced Outages: percent of Period Hrs	1.91	1.89	1.81	1.85	1.86
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	0	4,853	4,853
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.00	0.15	0.05
(M) Net mWh Not Generated due to Economic Dispatch	152,710	149,567	127,233	179,166	608,676
(N) Economic Dispatch: percent of Period Hrs	7.75	7.52	6.37	5.40	6.56
(O) Net mWh Possible in Period	1,971,000	1,988,520	1,997,280	3,320,040	9,276,840
(P) Equivalent Availability (%)	79.47	78.48	78.12	90.46	82.90
(Q) Output Factor (%)	79.13	77.56	78.50	92.53	83.48
(R) Heat Rate (BTU/NkWh)	8,961	9,045	8,957	4,638	7,253

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
June, 2018 through May, 2019**

Richmond County Station

	Unit 7	Unit 8	Unit ST4	Block Total
(A) MDC (mW)	191	191	178	560
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,241,584	1,233,442	1,391,617	3,866,643
(D) Capacity Factor (%)	74.18	73.69	89.30	78.82
(E) Net mWh Not Generated due to Full Scheduled Outages	103,816	93,362	60,727	257,904
(F) Scheduled Outages: percent of Period Hrs	6.20	5.58	3.90	5.26
(G) Net mWh Not Generated due to Partial Scheduled Outages	180,611	185,080	67,131	432,821
(H) Scheduled Derates: percent of Period Hrs	10.79	11.06	4.31	8.82
(I) Net mWh Not Generated due to Full Forced Outages	15,578	22,448	5,014	43,040
(J) Forced Outages: percent of Period Hrs	0.93	1.34	0.32	0.88
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	12,850	12,850
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.82	0.26
(M) Net mWh Not Generated due to Economic Dispatch	132,167	139,423	21,021	292,612
(N) Economic Dispatch: percent of Period Hrs	7.90	8.33	1.35	5.96
(O) Net mWh Possible in Period	1,673,755	1,673,755	1,558,361	4,905,871
(P) Equivalent Availability (%)	82.11	82.04	90.73	84.78
(Q) Output Factor (%)	80.17	80.09	93.67	84.53
(R) Heat Rate (BTU/NkWh)	11,343	11,181	0	7,209

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
June, 2018 through May, 2019**

Richmond County Station

	Unit 9	Unit 10	Unit ST5	Block Total
(A) MDC (mW)	216	216	248	680
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,268,966	1,273,339	1,644,650	4,186,955
(D) Capacity Factor (%)	67.06	67.30	75.70	70.29
(E) Net mWh Not Generated due to Full Scheduled Outages	325,051	342,004	423,113	1,090,168
(F) Scheduled Outages: percent of Period Hrs	17.18	18.07	19.48	18.30
(G) Net mWh Not Generated due to Partial Scheduled Outages	175,607	168,571	0	344,178
(H) Scheduled Derates: percent of Period Hrs	9.28	8.91	0.00	5.78
(I) Net mWh Not Generated due to Full Forced Outages	0	0	0	0
(J) Forced Outages: percent of Period Hrs	0.00	0.00	0.00	0.00
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	1,144	1,144
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.05	0.02
(M) Net mWh Not Generated due to Economic Dispatch	122,536	108,246	103,573	334,355
(N) Economic Dispatch: percent of Period Hrs	6.48	5.72	4.77	5.61
(O) Net mWh Possible in Period	1,892,160	1,892,160	2,172,480	5,956,800
(P) Equivalent Availability (%)	73.54	73.02	80.47	75.90
(Q) Output Factor (%)	82.89	83.20	94.06	87.05
(R) Heat Rate (BTU/NkWh)	11,324	11,248	0	6,853

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Base Load Power Plant
Performance Review Plan
June, 2018 through May, 2019**

Sutton Energy Complex

	Unit 1A	Unit 1B	Unit ST1	Block Total
(A) MDC (mW)	224	224	271	719
(B) Period Hrs	8,760	8,760	8,760	8,760
(C) Net Generation (mWh)	1,226,524	1,201,961	1,336,964	3,765,449
(D) Capacity Factor (%)	62.51	61.25	56.32	59.78
(E) Net mWh Not Generated due to Full Scheduled Outages	109,319	153,485	101,458	364,262
(F) Scheduled Outages: percent of Period Hrs	5.57	7.82	4.27	5.78
(G) Net mWh Not Generated due to Partial Scheduled Outages	241,737	226,422	19,388	487,547
(H) Scheduled Derates: percent of Period Hrs	12.32	11.54	0.82	7.74
(I) Net mWh Not Generated due to Full Forced Outages	134,639	175,112	569,475	879,226
(J) Forced Outages: percent of Period Hrs	6.86	8.92	23.99	13.96
(K) Net mWh Not Generated due to Partial Forced Outages	0	0	7,877	7,877
(L) Forced Derates: percent of Period Hrs	0.00	0.00	0.33	0.13
(M) Net mWh Not Generated due to Economic Dispatch	250,021	205,260	338,798	794,079
(N) Economic Dispatch: percent of Period Hrs	12.74	10.46	14.27	12.61
(O) Net mWh Possible in Period	1,962,240	1,962,240	2,373,960	6,298,440
(P) Equivalent Availability (%)	75.25	71.72	70.59	72.39
(Q) Output Factor (%)	77.75	77.93	78.79	78.18
(R) Heat Rate (BTU/NkWh)	11,382	11,385	0	7,342

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.
- (R) Includes Light Off BTU's

**Duke Energy Progress
Intermediate Power Plant
Performance Review Plan
June, 2018 through May, 2019**

Mayo Station

Units	Unit 1
(A) MDC (mW)	746
(B) Period Hrs	8,760
(C) Net Generation (mWh)	1,190,456
(D) Net mWh Possible in Period	6,534,960
(E) Equivalent Availability (%)	68.61
(F) Output Factor (%)	37.22
(G) Capacity Factor (%)	18.22

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

**Duke Energy Progress
Intermediate Power Plant
Performance Review Plan
June, 2018 through May, 2019**

Roxboro Station

Units	Unit 2	Unit 3	Unit 4
(A) MDC (mW)	673	698	711
(B) Period Hrs	8,760	8,760	8,760
(C) Net Generation (mWh)	1,299,322	1,482,164	2,303,610
(D) Net mWh Possible in Period	5,895,480	6,114,480	6,228,360
(E) Equivalent Availability (%)	80.08	58.77	72.06
(F) Output Factor (%)	49.33	52.16	58.38
(G) Capacity Factor (%)	22.04	24.24	36.99

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Outages for 100 mW or Larger Units
May, 2019

<u>Unit Name</u>	<u>Capacity Rating (mW)</u>	<u>Full Outage Hours</u>		<u>Total</u>
		<u>Scheduled</u>	<u>Unscheduled</u>	
Brunswick 1	938	0.00	0.00	0.00
Brunswick 2	932	0.00	0.00	0.00
Harris 1	964	0.00	0.00	0.00
Robinson 2	741	0.00	0.00	0.00

Duke Energy Progress
Outages for 100 mW or Larger Units
May 2019

Unit Name	Capacity Rating (mW)	Full Outage Hours		Total Outage Hours
		Scheduled	Unscheduled	
Asheville Steam 1	192	0.00	87.42	87.42
Asheville Steam 2	192	0.00	0.00	0.00
Asheville CT 3	185	301.70	0.00	301.70
Asheville CT 4	185	0.00	0.00	0.00
Darlington CT 12	133	93.00	0.00	93.00
Darlington CT 13	133	0.00	0.00	0.00
Lee Energy Complex CC 1A	225	497.77	0.00	497.77
Lee Energy Complex CC 1B	227	505.22	0.00	505.22
Lee Energy Complex CC 1C	228	518.62	0.00	518.62
Lee Energy Complex CC ST1	379	531.35	0.00	531.35
Mayo Steam 1	746	0.00	0.00	0.00
Richmond County CT 1	189	80.00	0.00	80.00
Richmond County CT 2	187	46.08	0.00	46.08
Richmond County CT 3	185	297.30	0.00	297.30
Richmond County CT 4	186	0.00	0.00	0.00
Richmond County CT 6	187	0.00	0.00	0.00
Richmond County CC 7	194	0.00	0.00	0.00
Richmond County CC 8	194	0.00	0.00	0.00
Richmond County CC ST4	182	0.00	0.00	0.00
Richmond County CC 9	216	404.92	0.00	404.92
Richmond County CC 10	216	474.53	0.00	474.53
Richmond County CC ST5	248	606.00	0.00	606.00

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.

Duke Energy Progress
Outages for 100 mW or Larger Units
May 2019

Unit Name	Capacity Rating (mW)	Full Outage Hours		Total Outage Hours
		Scheduled	Unscheduled	
Roxboro Steam 1	380	241.00	0.00	241.00
Roxboro Steam 2	673	449.00	0.00	449.00
Roxboro Steam 3	698	0.00	0.00	0.00
Roxboro Steam 4	711	532.95	0.00	532.95
Sutton Energy Complex CC 1A	224	0.00	8.37	8.37
Sutton Energy Complex CC 1B	224	0.00	36.23	36.23
Sutton Energy Complex CC ST1	271	0.00	0.00	0.00
Wayne County CT 10	192	0.00	25.28	25.28
Wayne County CT 11	192	0.00	0.00	0.00
Wayne County CT 12	193	0.00	22.53	22.53
Wayne County CT 13	191	0.00	0.00	0.00
Wayne County CT 14	195	0.00	0.00	0.00

Notes:

- Units in commercial operation for the full month are presented. Pre-commercial or partial month commercial operations are not included.